APPENDIX A

45. (Currently Amended) A method for repairing a subject's hip joint by heniarthroplasty, said method comprising the steps of:

(A) determining at least one body characteristic comprising at least the body weight of the subject;

(B) using the at least one body characteristic comprising at least the body weight determined in Step A to ~~determine the contact area of the subject's hip joint required to provide a hydrostatic pressure within the hip joint in the range of 0.01MPa to 5MPa;~~ ~~(C) using the at least one body characteristic comprising at least the body weight determined in Step A to~~ select a prosthetic femoral head and complementary reamer **[[,]]** the selected reamer being useable to ream an acetabular socket having an inner surface and the selected femoral head having a radius of curvature that corresponds to the shape of the acetabular socket reamed by the selected reamer ~~at least one body characteristic comprising at least the body weight determined in Step A~~ such that~~, when the~~ subsequent surgical implantation of the selected prosthetic femoral head ~~is surgically implanted~~ within an ~~a reamed~~ acetabular socket reamed by the selected ~~the~~ reamer **[[,]]** will result in a space between the prosthetic femoral head and the inner surface of the reamed acetabular socket within which fluid having a ~~a space will exists between the prosthetic femoral head and an inner surface of the reamed acetabular socket and fluid having~~ a hydrostatic pressure in the range of 0.01MPa-5MPa will accumulate ~~in said space~~; ~~and~~

(C**[[**D**]]**) reaming the hip joint's acetabulum using the selected reamer until cancellous bone is exposed to create a reamed acetabular socket t; and

(D**[[**E**]]**) surgically implanting the selected prosthetic femoral head ~~selected in Step C~~ such that resides within the reamed acetabular socket, thereby resulting in a space between the prosthetic femoral head and the inner surface of the reamed acetabular socket within which fluid having a hydrostatic pressure in the range of 0.01MPa-5MPa

naturally accumulates ~~in said space, thereby stimulating the formation of new cartilage between the prosthetic femoral head and the inner surface of the acetabular socket~~.

46. (Previously Presented) A method according to claim 45, wherein the hydrostatic pressure is in the range 0.5-2MPa.

47. (Previously Presented) A method according to claim 46, wherein the hydrostatic pressure is 2MPa.

48. (Previously Presented) A method according to claim 45 further comprising:

positioning a membrane between the prosthetic femoral head and the inner surface of the acetabular socket for at least a period of time.

49. (Previously Presented) A method according to claim 48 wherein the membrane is resorbable.

50. (Previously Presented) A method according to claim 48 wherein the membrane is formed *in situ*.

51. (Previously Presented) A method according to claim 45 further comprising the step of:

positioning a spacer element between the prosthetic femoral head and the inner surface of the acetabular socket for at least a period of time.

52. (Previously Presented) A method according to claim 51 wherein the spacer element is resorbable.

53. (Previously Presented) A method system according to claim 45, wherein the prosthetic femoral head selected in Step C has a surface that deforms so as to sustain the hydrostatic pressure.

54. (Previously Presented) A method according to claim 45 wherein said at least one body characteristic determined in Step A comprises, in addition to body weight, at least one additional characteristic selected from the group consisting of:

dimensions of the subject's natural femur; and

dimensions of the subject's pelvis.

APPENDIX B

Rob Buyan

From: Rob Buyan
Sent: Tuesday, August 10, 2010 12:26 PM
To: 'jonathan.stroud@uspto.gov'
Subject: US Patent Application Serial No. 10/544,260 (ULOND-001A)
Attachments: ULOND-000-Proposed Amendment.doc

Examiner Stroud:

Thank you for taking time for the telephonic interviews regarding US Patent Application Serial No. 10/544,260.

Attached is a Word document incorporating the amendments to independent claim 45 as tentatively agreed upon today.

Sincerely,

Rob Buyan
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Proposed Amendment

US Patent Application Serial No. 10/544,260

45. (Currently Amended) A method for repairing a subject's hip joint by heniarthroplasty such that fluid which naturally accumulates in a space between a prosthetic femoral head and an inner surface of a reamed acetabular socket has a hydrostatic pressure within the range of 0.01MPa-5MPa, said method comprising the steps of:

(A) determining at least one body characteristic comprising at least the body weight of the subject;

(B) using the at least one body characteristic comprising at least the body weight determined in Step A to ~~determine the contact area of the subject's hip joint required to provide a hydrostatic pressure within the hip joint in the range of 0.01MPa to 5MPa.;(C) using the at least one body characteristic comprising at least the body weight determined in Step A to~~ select a prosthetic femoral head and complementary reamer, the selected reamer being useable to ream an acetabular socket having an inner surface and the selected femoral head having a radius of curvature that corresponds to the shape of the acetabular socket reamed by the selected reamer ~~at least one body characteristic comprising at least the body weight determined in Step A~~ such that~~, when the~~ subsequent surgical implantation of the selected prosthetic femoral head ~~is surgically implanted~~ within an ~~a reamed~~ acetabular socket reamed by the selected ~~the~~ reamer [[,]] will result in a space between the prosthetic femoral head and the inner surface of the reamed acetabular socket within which fluid having ~~a space will exists between the prosthetic femoral head and an inner surface of the reamed acetabular socket and fluid having~~ a hydrostatic pressure in the range of 0.01MPa-5MPa will accumulate ~~in said space~~; ~~and~~

(C[[D]]) reaming the hip joint's acetabulum using the selected reamer until cancellous bone is exposed to create a reamed acetabular socket t; and

(D[[E]]) surgically implanting the selected prosthetic femoral head ~~selected in Step C~~ such that it resides within the reamed acetabular socket, thereby resulting in a space between the prosthetic femoral head and the inner surface of the reamed acetabular socket within which fluid having a hydrostatic pressure in the range of 0.01MPa-5MPa naturally accumulates ~~in said space, thereby stimulating the formation of new cartilage between the prosthetic femoral head and the inner surface of the acetabular socket~~.

46. (Previously Presented) A method according to claim 45, wherein the hydrostatic pressure is in the range 0.5-2MPa.

47. (Previously Presented) A method according to claim 46, wherein the hydrostatic pressure is 2MPa.

48. (Previously Presented) A method according to claim 45 further comprising:

positioning a membrane between the prosthetic femoral head and the inner surface of the acetabular socket for at least a period of time.

49. (Previously Presented) A method according to claim 48 wherein the membrane is resorbable.

50. (Previously Presented) A method according to claim 48 wherein the membrane is formed *in situ*.

51. (Previously Presented) A method according to claim 45 further comprising the step of:

positioning a spacer element between the prosthetic femoral head and the inner surface of the acetabular socket for at least a period of time.

52. (Previously Presented) A method according to claim 51 wherein the spacer element is resorbable.

53. (Previously Presented) A method system according to claim 45, wherein the prosthetic femoral head selected in Step C has a surface that deforms so as to sustain the hydrostatic pressure.

54. (Previously Presented) A method according to claim 45 wherein said at least one body characteristic determined in Step A comprises, in addition to body weight, at least one additional characteristic selected from the group consisting of:

dimensions of the subject's natural femur; and

dimensions of the subject's pelvis.